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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,535	06/23/2003	Sayori Shimohata	31759-190464	5780

26694   7590   02/09/2007
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EXAMINER
SIEDLER, DOROTHY S

ART UNIT	PAPER NUMBER
2626	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	10/600,535	SHIMOHATA ET AL.
Office Action Summary	Examiner	Art Unit	
	Dorothy Sarah Siedler	2626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after t he mailing date of this com munication, even if timely filed, may re duce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2003*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *6-23-03*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This is the initial response to the office action filled June 23, 2003. Claims 1-20 are

pending and are considered below.

Specification

The disclosure is objected to because of the following informalities: Spelling and

grammatical errors, for example: page 1, the title, page 4, 4th paragraph "will" should be

spelled "well", etc.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claim 4,5,14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. The claims are generally narrative and

indefinite, failing to conform with current U.S. practice. They appear to be a literal

translation into English from a foreign document and are replete with grammatical and

idiomatic errors.

Claims 4 and 14 recites the "selected document as the theme information to

generate the theme information". It is unclear as to whether for not the document is

assigned as the theme information, of if it is used to extract theme information. The

examiner interprets this claim as using the document to generate theme information.

This interpretation I used throughout the remainder of this office action.

Claims 5 and 15 recite "wherein in the selecting procedure, frequent expressions

which appear times the number of which is not less than a predetermined threshold

value in the documents in the set are detected, and a document which includes the

frequent expressions the number of which is largest is selected", however the scope of

the claim can not be determined from this statement. The examiner interprets this

limitation as using frequent expressions, occurring a minimum number of times in a

particular text, as indicators of texts with relevant theme information. This interpretation

used throughout the remainder of the office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,6,11-14 and 16 are rejected under 35 U.S.C. 102(b) as being

anticipated by *McKeown* ("Towards Multidocument Summarization by Reformulation:

Progress and Prospects", McKeown et al, AAAI 1999).

As per claims 1 and 11, *McKeown* discloses a document processing device and

method for processing a set having, as elements, a plurality of documents including

character information, comprising: a theme information generating unit for extracting the

commonality of the character information of the respective documents in the set to

generate theme information which is a document expressing common semantic

contents being common in the entire set (Introduction, 4th paragraph, Identifying

Themes, *themes are extracted using common semantic phrases*).

As per claims 2 and 12, **McKeown** discloses a document processing device and

method according to claims 1 and 11, wherein the theme information generating unit

executes a predetermined generating procedure on the basis of the plurality of

documents in the set to generate the theme information as a new document

(Introduction, 3rd paragraph and Figure 1, the *content planner and language generation*

component determine the content of the summary).

As per claims 3 and 13, **McKeown** discloses a document processing device and

method according to claims 2 and 12, wherein the theme information generating unit

extracts an expression being common in the plurality of documents in the set and

generates the theme information on the basis of the expression (System Architecture,

3rd paragraph, *content planner identifies phrases that are similar, in order to include*

them in the summary).

As per claims 4 and 14, **McKeown** discloses a document processing device and method according to claims 1 and 11, wherein the theme information generating unit selects documents having a commonality in character information in advance to constitute the set (Introduction, 3rd paragraph, *the input to the system is a set of related documents)*, selects one document from the plurality of documents in the set depending on a predetermined selecting procedure, and sets the selected document as the theme information to generate the theme information (System Architecture, 1st paragraph, *a similarity metric is computed across texts units from related documents, that similarity information used to determine what paragraphs from each document are used to formulate and abstract)*.

As per claims 6 and 16, **McKeown** discloses a document processing device and method according to claims 1 and 11, comprising a difference character information generating unit for generating difference character information serving as character information serving as differences between the theme information and the documents in the set (Introduction, 3rd paragraph, *similarity and difference information is determined across a set or related documents)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McKeown.

McKeown discloses a document processing device and method according to claims 4

and 14, but does not explicitly state wherein in the selecting procedure, frequent

expressions which appear times the number of which is not less than a predetermined

threshold value in the documents in the set are detected, and a document which

includes the frequent expressions the number of which is largest is selected. However,

McKeown does disclose that a traditional method for determining similarity among tests

is to use the frequency of term occurrence (Document Analysis, 3rd paragraph).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to use frequency of term occurrence to determine similarity among texts

in *McKeown*, since it is a straightforward way to determine similarity with many

techniques readily available, as indicated in *McKeown* (Language Generation), thus

removing the need for additional processing time needed to develop a new technique.

Claims 7-10 and 17-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over *McKeown* in view of *Woods* (6,282,538).

As per claims 7 and 17, **McKeown** discloses a document processing device and

method according to claims 6 and 16, but does not disclose an information presenting

unit for displaying a document obtained by the theme information generating unit; and a

text set accumulating unit for accumulating the documents processed into documents of

a predetermined display form suitable for display on the information presenting unit,

wherein the information presenting unit displays that the difference character

information is differences between the theme information and the documents in the set.

Woods discloses an information presenting unit for displaying a document obtained by

the theme information generating unit (column 7 lines 40-43, *hit passages, determined*

by key terms that are semantically similar to terms from an input query, are displayed

within the context of the document within which it occurs); and a text set accumulating

unit for accumulating the documents processed into documents of a predetermined

display form suitable for display on the information presenting unit, wherein the

information presenting unit displays that the difference character information is

differences between the theme information and the documents in the set (column 7

lines 26-32 and lines 40-43, *term hits are ranked according to relevance, determined by*

their similarity to the query input. Those term hits are then linked to the hit passages

displayed to the user). **McKeown** and **Woods** both disclose systems for responding to

queries in and information retrieval system.

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to display a document obtained from the theme information, display

multiple document, and display the difference information between the theme

information and those documents in *McKeown*, since automatically ranking the

passages gives the user an idea of the relevance of each passage, without having to

reformulate the query, as indicated in *Woods* (column 3 lines 5-13).

As per claims 8 and 18, *McKeown* discloses a document processing device and

method according to claims 7 and 17, but does not disclose the information presenting

unit displaying the theme information and difference character information between the

theme information and the documents on a screen depending on an operation by a

user. *Woods* discloses the information presenting unit displaying the theme information

and difference character information between the theme information and the documents

on a screen depending on an operation by a user (column 7 lines 26-32 and lines 40-

43, *in response to a user query, term hits are ranked according to relevance,*

determined by their similarity to the query input. Those term hits are then linked to the

hit passages displayed to the user).

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to difference information between the theme information and the

documents on the screen in *McKeown*, since displaying difference information, i.e.

automatically ranking the passages, gives the user an idea of the relevance of each

passage, without having to reformulate the query, as indicated in *Woods* (column 3

lines 5-13).

As per claims 9 and 19, **McKeown** discloses a document processing device and method according to claims 7 and 17, but does not disclose the information presenting unit displaying source information representing an on-line or off-line source of a document including the difference character information on a screen depending on an operation by the user. **Woods** discloses the information presenting unit displaying source information representing an on-line or off-line source of a document including the difference character information on a screen depending on an operation by the user (column 7 lines 40-48, *hit passages, determined by key terms that are semantically similar to terms from an input query, are displayed within the context of the document within which it occurs*).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to display on-line or offline source information in **McKeown**, since it would allow the user to move through the source document as will, as indicated in **Woods** (column 7 lines 43-48), and allow them to determine any other relevant paragraphs.

As per claims 10 and 20 **McKeown** discloses a document processing device and method according to claims 9 and 19, but does not disclose that when the user performs a predetermined operation to the source information displayed on the screen, the information presenting unit executes predetermined identification display for

identifying difference character information between a document corresponding to the

source information and the theme information to the theme information displayed on the

screen. *Woods* the information presenting unit executing a predetermined identification

display for identifying difference character information between a document

corresponding to the source information and the theme information to the theme

information displayed on the screen (column 7 lines 26-32). *Woods* automatically

determines difference information between a theme and source information, and

outputs the ranked list of hit passages, rather than waiting for a user response. *Woods*

simply automates the manual process disclosed in the instant application.

Therefore it would have been obvious to one of ordinary skill in the art at the time

of the invention to display difference character information between the source and

theme information in *McKeown*, since it would save on processing time by enabling the

user to choose which documents are compared to determine difference information,

rather than automatically comparing all documents.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Sotomayor (5,708,825) discloses creating an automatic summary of online
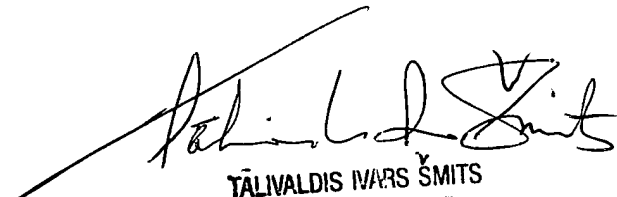 documents with hyperlink generation.

- Wacholder (6,167,368) discloses a system that identifies significant topics within documents.

- Ishikawa (6,338,034) discloses generating a summary of a document based on frequent expressions.

- Chen (5,689,716) discloses an automatic method to generate theme information from multiple documents.

- Fleischer (5,960,383) discloses using automatic indexing to extract sections from documents.

- Liddy (6,026,388) discloses using NLP to represent contents of queries and document during information retrieval.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Sarah Siedler whose telephone number is 571-270-1067. The examiner can normally be reached on Mon-Thur 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSS

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